



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,890	03/01/2006	Martin Kunz	11-2-22990/INP 3/PCT	5145
324 7590 11/29/2009				
JoAnn Villamizar				
Ciba Corporation/Patent Department				
540 White Plains Road				
P.O. Box 2005				
Tarrytown, NY 10591				
EXAMINER				
HORNING, JOEL G				
ART UNIT		PAPER NUMBER		
1792				
NOTIFICATION DATE		DELIVERY MODE		
11/20/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

andrea.dececchis@ciba.com  
deborah.pinori@ciba.com  
sonny.nkansa@basf.com

### Office Action Summary

**Application No.**

10/538,890

**Applicant(s)**

KUNZ ET AL.

**Examiner**

JOEL G. HORNING

**Art Unit**

1792

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19, 21 and 22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19, 21 and 22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S5108)  
Paper No(s)/Mail Date 11-04-2009
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Claim 23 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 07-22-2009.
2. Applicant noted that claim 6 read upon the elected species of photoinitiator, so claim 6 is being considered in this rejection (it was also considered and rejected in the last rejection).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1-15, 19, 21 and 22** are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0475592 (hereafter referred to as '592, as supplied by applicant in their new IDS).

'592 teaches a process of forming a coating on an organic polyester (**claims 3-5**) film (sheet, **claim 2**) substrate. The process comprises (a) exposing the substrate to a nitrogen gas (**claim 10**) corona discharge (page 3, lines 22-25), (b) coating said substrate with an activatable initiator (photoinitiators) and polyethylenically unsaturated monomers (page 3, lines 10-14), which in practice is in a solution (page 7, lines 21-26). The formed layer is (c) exposed to UV light in order

to crosslink it (page 3, lines 14-15), forming a surface with superior bonding to subsequently applied (d) adhesive layer.

It is clearly envisaged from the fact that the layers adhere well together that the layers interact with each other (if they had no interaction, they would not adhere at all). Therefore, there must be some sort of functional groups on the adhesion promotion layer and the further coating layer that allow them to interact (**claim 1**).

4. '592 also teaches that the photoinitiator can be benzophenones (**claim 6**, page 5, lines 46-51), which are unsaturated (**claim 7**). The ethylenically unsaturated compound can be a polyfunctional acrylate monomer (**claims 8 and 9**, page 7, lines 22-23), the coating of step (b) can be carried out by spraying (**claim 11**, page 7, lines 28-30). The unsaturated compound is present in a concentration from 20-30% by weight (**claim 13**) and the initiator is present in a concentration of 2-4% by weight (**claim 12**, page 7, lines 22-25).
5. Regarding **claim 14**, though the claim does not require that they be present, '592 teaches including additives that are customarily known to the art, such as thickeners and dyes to the solution (page 7, lines 25-26).
6. Regarding **claim 15**, '592 teaches making the applied layer 25 microns in thickness (page 9, lines 15-18) when wet, so it will certainly be between monomolecular and 2mm in thickness when dry.
7. Regarding **claims 19, 21 and 22**, the step (d) layer is a solid adhesive layer applied by lamination (page 7, lines 33-36).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. **Claims 1-17, 19 and 21-22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer et al (WO-00/24527, as literally translated in US 6548121).

The instant **claim 1** is directed towards a process for the production of a coating on an inorganic or organic substrate, wherein:

- I. A low temperature plasma treatment, a corona discharge treatment, high energy treatment or a flame treatment is carried out on the substrate;
- II. A melt, solution, suspension or emulsion of at least one activatable initiator, which may optionally include at least one ethylenically unsaturated compound, with at least one of the initiators or the unsaturated compounds containing a group that interacts with a subsequently applied coating or reacts with groups contained therein, with the effect of promoting adhesion, and

- III. The coated substrate is heated and/or irradiated with electromagnetic waves, and an adhesion promoter layer is formed
- IV. The substrate treated this way is provided with a further coating which contains reactive groups that react with those of the adhesion promoter layer and or interact with the adhesion promoter layer.

Bauer et al teaches a process for producing a coating on an organic or inorganic substrate in order to promote adhesion. This method comprises: a corona discharge is carried out on the substrate (step "a"), one or more activatable initiators containing at least one ethylenically unsaturated group (**claim 7**) are applied to the substrate (step "b"), the substrate is coated with composition comprising at least one ethylenically unsaturated monomer or oligomer (**claim 8**) and is irradiated with electromagnetic waves so that the coatings are cured (col 1, line 50 through col 2, line 8).

Bauer et al teaches that the initiator can be in the form of a solution and be applied by spraying (**claim 11**) (col 15, lines 15-17).

Even though Bauer et al teaches performing the irradiation step after depositing the further coating layer (instead of applicant's claimed irradiation before the further deposition), MPEP 2144.04 (IV) states: "selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results."

It is also readily apparent from the fact that the layers adhere well together that the layers interact with each other (if they had no interaction, they would not

adhere at all). Therefore, there must be some sort of functional groups on the adhesion promotion layer and the further coating layer that allow them to interact.

9. Regarding **claim 2**, Bauer et al teaches that the substrate can be a film (col 3, lines 12-15).
10. Regarding **claims 3-5**, Bauer et al teaches polyolefins (e.g. polypropylene) as desired substrates for the process (col 3, lines 12-22).
11. Regarding **claim 6**, Bauer et al teaches using benzophenones for the photoinitiator (col 17, lines 49-65).
12. Regarding **claim 9**, Bauer et al teaches that the ethylenically unsaturated compound can be a methacrylate (col 15, lines 28-33).
13. Regarding **claim 10**, Bauer et al teaches using air as the plasma gas (col 2, lines 20-25).
14. Regarding **claims 12 and 13**, which claim different concentrations of the components of the mixtures. MPEP 2144.05 (II) states: "Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. '[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.'"
15. Regarding **claim 14**, Bauer et al teaches adding "additives customary in the art" to the composition (col 21, lines 57-60).

16. Regarding **claim 15**, Bauer et al teaches applying the coating to a thickness of between 1 to approximately 100 microns (col 19, lines 52-57), which is encompassed by applicant's claimed range.
17. Regarding **claim 16**, Bauer et al teaches performing the irradiation step with UV/VIS radiation col 2, lines 5-9), and further teaches that UV/VIS radiation is to be considered between 250 nm and 450 nm (col 17, lines 52-55), which is encompassed by applicant's claimed range.
18. Regarding **claim 17**, Bauer et al teaches irradiating the coated substrate through a mask, so only certain areas are exposed to the irradiation (col 3, lines 1-7).
19. Regarding **claim 19**, Bauer et al teaches coating the additional layer of step d by spin coating (col 15, lines 20-27).
20. Regarding **claims 21-22**, Bauer et al teaches that the coating can be a printing ink (col 19, lines 52-57), from which it is readily apparent that the coating is either a solid or a liquid.
21. **Claim 16** is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0475592 (hereafter referred to as '592, as supplied by applicant in their new IDS), as applied to claim 1 previously.
- '592 further teaches that the UV irradiation can have a wavelength of 18.5-400nm (page 7, lines 31-32), which overlaps with applicants claimed range. MPEP 2144.05 states: "In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists."



22. **Claim 18** is rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer et al (US 6548121) as applied to claim 1 above, and further in view of Kohler et al (US 6251963).

Bauer et al teaches that the method is used for forming photoinitiator layers for image forming resist coatings (col 23, lines 10-16), but does not say how such images are formed by resist technology.

However, '963 further teaches that images are formed by resist technology by covering parts of the wet or dry resist layer with a photomask and then irradiating the layer with electromagnetic waves to crosslink a pattern in the resist (the UV/VIS - exposure step) and removing the unexposed (not crosslinked) regions of the photoresist by using a solvent (col 21, lines 13-23).

Thus it would have been obvious to a person of ordinary skill in the art at the time of invention to modify Bauer et al to cover the deposited structure of a photoinitiator layer and a monomer or oligomer containing layer with a photomask so that the irradiation step would only crosslink a pattern in the coating and then to remove the non-crosslinked regions of the coating (photoinitiator and monomer/oligomer) by using a solvent, in order to form an image in the coating as desired by Bauer et al. Using this method is obvious, because it was a known method for producing an image in a photoinitiator layer and would produce predictable results.

#### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

Art Unit: 1792

unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

**23. Claims 1, 2, 10-13, 15-19 and 21** are rejected on the ground of nonstatutory

obviousness-type double patenting as being unpatentable over claims 1-17 of U. S.

Patent No. 7455891. Although the conflicting claims are not identical, they are not

patentably distinct from each other because the '891 claims are sufficient to

anticipate species from the markush groups in the claims. Additionally, the

photoinitiator compounds are in solutions (claim 6) and the claims require that the

coatings are strongly adherent, which means that the layers must interact with each

other. Furthermore: MPEP 2144.05 (II) states that "Generally, differences in

concentration or temperature will not support the patentability of subject matter

encompassed by the prior art unless there is evidence indicating such concentration

or temperature is critical. [W]here the general conditions of a claim are disclosed in

the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation."

24. **Claims 3-5, 14 and 22** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-17 of U. S. Patent No. 7455891 as applied in the double patenting rejection above further in view of WO-00/24527, as literally translated in US 6548121. Though '891 does not claim the substrate of claims 3-5, the additives of claim 14, or the coatings of claim 22, as described in the Bauer et al rejections of those claims, it would have been obvious to a person of ordinary skill in the art at the time of invention to perform those claimed limitations since they were known to the art to be suitable and would produce predictable results.
25. **Claims 1, 2, 10, 12, 13 and 15-19 and 21** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-17 of copending Application No. 10556609. Although the conflicting claims are not identical, they are not patentably distinct from each other because the '609 claims are sufficient to anticipate species from the markush groups in the claims. Additionally, the photoinitiator compounds are in solutions (claim 7) and the claims require that the coatings are strongly adherent, which means that the layers must interact with each other. Furthermore: MPEP 2144.05 (II) states that "Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. '[W]here the general conditions of a claim

are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation."

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

26. **Claims 3-5, 7-9, 11, 14 and 22** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-17 of copending Application No. 10556609 as applied in the double patenting rejection above further in view of WO-00/24527, as literally translated in US 6548121. Though '609 does not claim the substrate of claims 3-5 or the additives of claim 14, as described in the Bauer et al rejections of those claims, it would have been obvious to a person of ordinary skill in the art at the time of invention to perform those claimed limitations since they were known to the art to be suitable and would produce predictable results.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

27. **Claims 1, 2, 10, 12, 13 and 15-19 and 21** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-17 of copending Application No. 10566741. Although the conflicting claims are not identical, they are not patentably distinct from each other because the '741 claims are sufficient to anticipate species from the markush groups in the claims. Additionally, the photoinitiator compounds are in solutions (claim 7) and the claims

require that the coatings are strongly adherent, which means that the layers must interact with each other. Furthermore: MPEP 2144.05 (II) states that "Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. '[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.'"

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

**28. Claims 3-5, 7-9, 11, 14 and 22** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-17 of copending Application No. 10566741 as applied in the double patenting rejection above further in view of WO-00/24527. Though '741 does not claim the substrate of claims 3-5, the coatings of claims 7-9 and 22, the deposition methods of claim 11 or the additives of claim 14 as described in the Bauer et al rejections of those claims, it would have been obvious to a person of ordinary skill in the art at the time of invention to perform those claimed limitations since they were known to the art to be suitable and would produce predictable results.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

**29. Claims 1, 2, 10, 12, 13, 15-19 and 21** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims

1-18 of copending Application No. 10566743. Although the conflicting claims are not identical, they are not patentably distinct from each other because the '743 claims are sufficient to anticipate species from the markush groups in the claims. Additionally, the photoinitiator compounds are in solutions (claim 7) and the claims require that the coatings are strongly adherent, which means that the layers must interact with each other. Furthermore: MPEP 2144.05 (II) states that "Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. '[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.'"

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

30. **Claims 3-5, 7-9, 11, 14 and 22** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-18 of copending Application No. 10566743 as applied in the double patenting rejection above further in view of WO-00/24527, as literally translated in US 6548121. Though '743 does not claim the substrate of claims 3-5, the coatings of claims 7-9 and 22, the deposition methods of claim 11 or the additives of claim 14, as described in the Bauer et al rejections of those claims, it would have been obvious to a person of ordinary skill in the art at the time of invention to perform

those claimed limitations since they were known to the art to be suitable and would produce predictable results.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

31. **Claims 1-5, 7-19, 21 and 22** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-22 of copending Application No. 10/538893 further in view of WO-00/24527, as literally translated in US 6548121. Although the conflicting claims are not identical, they are not patentably distinct from each other because the '893 claims are sufficient to anticipate species from the markush groups in the claims. Though the '893 claims do not require that the coatings have functional groups that interact to create adhesion, as described in the Bauer et al rejections of those claims, it would have been obvious to a person of ordinary skill in the art at the time of invention to perform those claimed limitations since they were known to the art to be desirable (better adhesion) and would produce predictable results.

32. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

33. **Claims 1-5, 7-19, 21 and 22** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 10/530614 as applied in the double patenting rejection above further in view of WO-00/24527, as literally translated in US 6548121.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the '614 claims are sufficient to anticipate species from the markush groups in the claims. Though the '614 claims do not require that the coatings have functional groups that interact to create adhesion, as described in the Bauer et al rejections of those claims, it would have been obvious to a person of ordinary skill in the art at the time of invention to perform those claimed limitations since they were known to the art to be desirable (better adhesion) and would produce predictable results.

34. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

#### ***Response to Arguments***

Comment [mbc1]: FPs for dealing with declarations are found in the "Response to Amendment" menu.

35. Applicant's arguments with respect to claims 1-19 and 21-22 have been considered but are not convincing in view of the new ground(s) of rejection necessitated by amendment.
36. The declaration under 37 CFR 1.132 filed 11-04-2009 is insufficient to overcome the rejection of claims 1-19 and 21-22 based upon Bauer et al as set forth in the last Office action because:
- a. Applicant's showing of new or unexpected results is not commensurate in scope with their claims, which encompass a large variety of: polymers, initiators, and subsequent coatings, deposited at a wide range of thickness, in



addition to either using heating or irradiation, neither of which need to have any particular effect (e.g. curing, drying, decomposing, etc) on the coatings.

Applicant's declaration shows only one specific substrate, one specific primer solution, deposited at one specific thickness, with one specific subsequent coating formulation applied at one specific thickness and treated by irradiation for the purposes of curing. Neither has applicant provided any reasoning or explanation as to why a person of ordinary skill in the art would recognize that such a showing from the one provided example would be transferable to the entirety of the scope of applicant's claims, especially in light of the claims not requiring that the layers be cured.

One such example of this scope of showing issue is that the claims do not require that the irradiation cure the layer. Thus applicant's determination that the way the layer is cured produces an advantageous effect is not consistent with the claimed scope of the claims to all irradiation (including those which would not cure the layer). As a result, even if applicant does provide a convincing declaration showing that the order of steps does produce new or unexpected results (due to curing), the heating and/or irradiation with electromagnetic waves of the "adhesion promoter layer" does not require any curing to take place, so the unexpected or new result due to curing would not be expected to be present in those cases, but they are still claimed. If applicant does not specifically require the step to cure the primer layer, the examiner would have rejected it because it is obvious to expose the

coating to ambient light in order to observe the deposited film to ensure it has been deposited and uniformly for quality control purposes. Likewise it would be obvious to heat said layer in order to make it dry faster.

To convincingly deal with the scope of showing, applicant could either limit their claims to the scope of what they have demonstrated (after such experiments have been shown to demonstrate unexpected or new results), or perform more tests and build a case as to why such showings would be transferrable to the scope you decide to claim.

- b. Regarding the specific experiments used to show that the order of the processing steps produces new or unexpected results, one important feature of the performed experiments as performed is that the difference between the experiments is not just the order of curing steps. Since applicant has simply removed one of the curing steps for the sample intended to follow the teaching of Bauer et al, the sample following applicant's claimed process order is given twice the curing radiation dose as the sample that is intended to follow the teaching of Bauer. From this, a person of ordinary skill in the art would be led to believe that the sample that is intended to follow the teaching of Bauer et al is simply not fully cured, which unsurprisingly, would result in the film having inferior adhesion since there are fewer bonds holding it together.

In order to separate these two issues, it would be more helpful to have an experiment comparing applicant's two exposure treatment (one before and

one after the coating step) to an experiment with a single exposure treatment (after the coating step) at the same power for twice the time, or better yet, the same two exposures as applicant, but both being performed after the coating step.

37. As a result, the declaration is not convincing, and the rejections are maintained.

***Conclusion***

38. No current claims are allowed.

Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on 11-04-2009 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609.04(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOEL G. HORNING whose telephone number is (571) 270-5357. The examiner can normally be reached on M-F 9-5pm with alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael B. Cleveland can be reached on (571)272-1418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. G. H./  
Examiner, Art Unit 1792

Art Unit: 1792

/Michael Cleveland/

Supervisory Patent Examiner, Art Unit 1792